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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,382	12/23/2003	Manabu Kanzaki	12054-0022	7924
22902 7590 02/16/2007 CLARK & BRODY 1090 VERMONT AVENUE, NW SUITE 250 WASHINGTON, DC 20005			EXAMINER ROE, JESSEE RANDALL	
			ART UNIT 1742	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/16/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.		Applicant(s)	
	10/743,382		KANZAKI, MANABU	
	Examiner		Art Unit	
	Jessee Roe		1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 10-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 10-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

Claims 1-3 and 10-12 remain for examination wherein claims 1-2 and 10-11 are amended and claims 4-9 are canceled.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1 December 2006 has been entered.

Status of Previous Rejections

The previous rejection of claims 2-3 and 11-12 under 35 U.S.C. 102(b) as being anticipated by Smith (US 4,761,190) is withdrawn in view of the Applicant's amendments to the claims. The previous rejection of claims 1 and 10 under 35 U.S.C. 103(a) as being unpatentable over Smith (4,761,190) is withdrawn in view of the Applicant's amendments to the claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Economy (US 3,565,611),

In regards to claims 1 and 10, a comparison of the alloy composition of the instant invention in comparison with the composition disclosed by Economy (US 3,565,611) is shown in the table below.

Element	From Instant Claims (weight percent)	Economy ('611) (weight percent)	Overlapping range
(col. 2, lines 18-41)			
C	0.01-0.04	0-0.1	0.01-0.04
Si	0.05-1.0	0-1.0	0.05-1.0
Mn	0.05-1.0	0-6.0	0.05-1.0
Cr	28.0-35.0	18.0-35.0	28.0-35.0
Ni	40.0-70.0	Balance (45.9-82)	45.9-70
Ti	0.01-0.5	0-1.0	0.01-0.5
Al	0-0.5	0-4.0	0-0.5
Fe	Balance	0-7.0	0-7.0

The ranges disclosed by Economy ('611) for carbon, silicon, manganese, chromium, nickel, titanium, and iron for a nickel alloy are within the ranges claimed of the instant invention. The Examiner notes that the disclosed composition of the nickel alloy overlaps with the composition of the claimed invention. Therefore, a prima facie case of obviousness exists. See MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed

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compositions of a nickel alloy from the compositions disclosed by Economy ('611) because Economy ('611) discloses the same utility (corrosion resistant industrial materials) throughout the disclosed ranges.

The Examiner notes that neither the instant invention nor Economy ('611) necessitate the presence of phosphorus or sulfur because the phosphorus and sulfur contents of the instant invention are 0.015 or less (which includes 0) and Economy ('611) does not mention the presence of either phosphorus or sulfur.

Further, Economy ('611) discloses soaking (solution treating) at 2200°F (1204°C) and annealing (heat treatment for precipitation of carbides) at 2100°F (1149°C) (col. 2, line 63 – col. 3, line 52). The Examiner asserts that the alloy would inherently have the claimed low angle boundary rate of 4% or more as for the grain boundaries formed and an excellent resistance to intergranular stress corrosion cracking as a result of soaking (solution treating) and annealing at 900°C or more. See MPEP 2112.01 I.

In regards to claim 2, a comparison of the alloy composition of the instant invention in comparison with the composition disclosed by Economy (US 3,565,611) is shown in the table below.

Element	From Instant Claims (weight percent)	Economy ('611) (weight percent)	Overlapping range
(col. 2, lines 18-41)			
C	0.01-0.05	0-0.1	0.01-0.05
Si	0.05-1.0	0-1.0	0.05-1.0
Mn	0.05-1.0	0-6.0	0.05-1.0
Cr	28.0-35.0	18.0-35.0	28.0-35.0
Ni	40.0-80.0	Balance (45.9-82)	49.9-80
Ti	0-0.5	0-1.0	0-0.5
Al	0-2.0	0-4.0	0-2.0
Fe	Balance	0-7.0	0-7.0

The ranges disclosed by Economy ('611) for carbon, silicon, manganese, chromium, nickel, titanium, and iron for a nickel alloy are within the ranges claimed of the instant invention. The Examiner notes that the disclosed composition of the nickel alloy overlaps with the composition of the claimed invention. Therefore, a prima facie case of obviousness exists. See MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed compositions of a nickel alloy from the compositions disclosed by Economy ('611) because Economy ('611) discloses the same utility (corrosion resistant industrial materials) throughout the disclosed ranges.

The Examiner notes that neither the instant invention nor Economy ('611) necessitate the presence of phosphorus or sulfur because the phosphorus and sulfur contents of the instant invention are 0.02 or less (which includes 0) and Economy ('611) does not mention the presence of either phosphorus or sulfur.

Further, Economy ('611) discloses soaking (solution treating) at 2200°F (1204°C) (col. 2, line 63 – col. 3, line 52). The Examiner asserts that the alloy would inherently have the claimed low angle boundary rate of 4% or more as for the grain boundaries formed and an excellent resistance to intergranular stress corrosion cracking as a result of soaking (solution treating) at 900°C or more and annealing at 900°C or more after the solution treatment. See MPEP 2112.01 I.

In regards to claim 11, a comparison of the alloy composition of the instant invention in comparison with the composition disclosed by Economy (US 3,565,611) is shown in the table on the following page.

Element	From Instant Claims (weight percent)	Economy ('611) (weight percent)	Overlapping range
(col. 2, lines 18-41)			
C	0.01-0.04	0-0.1	0.01-0.04
Si	0.05-1.0	0-1.0	0.05-1.0
Mn	0.05-1.0	0-6.0	0.05-1.0
Cr	28.0-35.0	18.0-35.0	28.0-35.0
Ni	40.0-80.0	Balance (45.9-82)	49.9-80
Ti	0-0.5	0-1.0	0-0.5
Al	0-2.0	0-4.0	0-2.0
Fe	Balance	0-7.0	0-7.0

The ranges disclosed by Economy ('611) for carbon, silicon, manganese, chromium, nickel, titanium, and iron for a nickel alloy are within the ranges claimed of the instant invention. The Examiner notes that the disclosed composition of the nickel alloy overlaps with the composition of the claimed invention. Therefore, a prima facie case of obviousness exists. See MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed compositions of a nickel alloy from the compositions disclosed by Economy ('611) because Economy ('611) discloses the same utility (corrosion resistant industrial materials) throughout the disclosed ranges.

The Examiner notes that neither the instant invention nor Economy ('611) necessitate the presence of phosphorus or sulfur because the phosphorus and sulfur contents of the instant invention are 0.02 or less (which includes 0) and Economy ('611) does not mention the presence of either phosphorus or sulfur.

Further, Economy ('611) discloses soaking (solution treating) at 2200°F (1204°C) and annealing (heat treatment for precipitation of carbides) at 2100°F (1149°C) (col. 2, line 63 – col. 3, line 52). The Examiner asserts that the alloy would inherently have the

claimed low angle boundary rate of 4% or more as for the grain boundaries formed and an excellent resistance to intergranular stress corrosion cracking as a result of soaking (solution treating) at 900°C or more and annealing at 900°C or more. See MPEP 2112.01 I.

In regards to claims 3 and 12, Economy ('611) discloses adding up to 6 weight percent copper (which overlaps the claimed 1 weight percent or less added copper).

Response to Arguments

Applicant's arguments with respect to claim 1-3 and 10-12 filed 2 November 2006 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessee Roe whose telephone number is (571) 272-5938. The examiner can normally be reached on Monday-Friday 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JR

ROY KING
PATENT EXAMINER
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